

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

**GENERAL ORDER OF APPROVAL FOR
PERCHLOROETHYLENE DRY CLEANERS USING LESS
THAN 2100 GALLONS PER YEAR**

General Order No. 06AQ-G206
Issued _____, 2006

I. Applicability Criteria for this Air Quality General Order of Approval

Parameter	Criteria
Type of machine	New and used cleaning machines originally designed and constructed as dry-to-dry equipment, equipped with refrigerated condenser (also known as 4 th generation equipment)
Maximum machine size	None
Solvents allowed	Perchloroethylene
Purchased quantity of solvent per year	Less than 2100 gal/yr
Location	Shall not be located in any building containing a residence.
Other Requirements	<ol style="list-style-type: none">1. The covered equipment is not part of a new major stationary source or major modification to a major stationary source which is subject to preview under the Prevention of Significant Deterioration program.2. The addition of the covered equipment to an existing source does not make the source subject to the Air Operating Permit program or require a modification in an existing Air Operating Permit.

II. How to apply

Submit:

1. Submit the appropriate application forms. The forms are available from the Ecology office which covers the location of your proposed boiler installation.

Air Quality Program Central Regional Office 15 West Yakima Ave -- Suite 200 Yakima, WA 98902-3452 Tel. No 509-575-2490	Air Quality Program Eastern Regional Office N. 4601 Monroe Spokane, WA 99205-1295 Tel. No 509-329-3400
Industrial Section PO Box 47600 Olympia, WA 98504-7600 Tel. No. 360-407-6945	Nuclear Waste Program Hanford Unit 3100 Port of Benton Blvd. Richland, WA 99354 Tel. No. 509-372-7950
On the internet at : http://www.ecy.wa.gov/programs/air	Air Quality Program Northwest Regional Office 3190 160 th Ave. SE Bellevue, Washington 98008-5452 Tel. No. 425-649-7283

2. The application/coverage fee of \$250 (make check payable to the Department of Ecology)

3. Provide documentation of State Environmental Policy Act (SEPA) compliance.

If SEPA for this project has been done by another agency, submit copy of DNS, MDNS, or EIS issued for the project'

If SEPA has not been completed by another agency, submit a completed SEPA checklist.

A copy of the checklist is available from the above contacts or on the internet at

http://www.ecy.wa.gov/biblio/forms-sepa_forms.html.

Granting of Coverage

For those units that qualify for coverage, the applicant will receive a Coverage Order within 30 days after the complete application has been received by Ecology.

For those dry cleaner installations that do not qualify for coverage under this General Order, the applicant will receive a letter from Ecology within 30 days after the application has been received. The letter will explain why the unit does not qualify for coverage under this General Order of Approval and how to apply for an air quality approval for the boiler.

III. Approval Conditions

1. Maximum perchloroethylene purchased will be less than 2100 gallons perchloroethylene per rolling 12 month period, exclusive of the initial charge for the machine.
2. Machine design:
 - a. New and used non-vented, dry-to-dry machines equipped with a refrigerated condenser.
 - b. Design shall prevent air drawn into the dry cleaning machine when the door of the machine is open from passing through the refrigerated condenser.
 - c. Design shall route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser and pass the air-perchloroethylene gas-vapor stream from inside the dry cleaning machine drum through a carbon adsorber or equivalent control device immediately before the door of the dry cleaning machine is opened.
 - d. The refrigerated condenser shall not vent the air-perchloroethylene gas-vapor stream while the dry cleaning machine drum is rotating.
 - e. The air temperature at the outlet of the refrigerated condenser must be less than or equal to 45°F (7.2°C) during the cool-down period.
3. General operations and maintenance requirements.
 - a. Drain cartridge filters in their housing or other sealed container for at least twenty-four hours before discarding the cartridges.
 - b. Close the door of each dry cleaning machine except when transferring articles to or from the machine.
 - c. Store all perchloroethylene and wastes containing perchloroethylene (including used filters), in a closed container with no perceptible leaks.
 - d. Operate and maintain the dry cleaning system according to the manufacturer's specifications and recommendations.
 - e. All carbon adsorbers installed in the dry cleaning system must be desorbed in accordance with manufacturer's instructions.
 - f. Keep a copy on-site of the design specifications and operating manuals for all dry cleaning equipment.
 - g. Keep a copy on-site of the design specifications and operating manuals for all emissions control devices.
4. Inspection
 - a. Weekly:
 - i. Visually inspect the system for perceptible leaks while the dry cleaning system is operating. Inspection with a halogenated hydrocarbon detector or perchloroethylene gas analyzer also fulfills the requirement for visual inspection for perceptible leaks.
 - ii. Refrigerated condenser inlet and outlet temperatures
 - b. Monthly: With a halogenated hydrocarbon detector or perchloroethylene gas analyzer
 - i. Inspect the components listed in Approval Condition 5.c. for vapor leaks once per month while the component is in operation.

- ii. When inspecting components for vapor leaks, the owner or operator shall use a halogenated hydrocarbon detector or perchloroethylene gas analyzer that is operated according to the manufacturer's instructions.
 - 1. The operator shall place the probe inlet at the surface of each component interface where leakage could occur and move it slowly along the interface periphery.
 - 2. The halogenated hydrocarbon detector or perchloroethylene analyzer used must meet the design and sensitivity criteria in 40 CFR 63.321
 - 3. A vapor leak means a perchloroethylene vapor concentration exceeding 25 parts per million by volume (50 parts per million by volume as methane) as indicated by a halogenated hydrocarbon detector or perchloroethylene gas analyzer.
 - c. An inspection must include an examination of these components for condition and perceptible leaks:
 - i. Hose and pipe connections, fittings, couplings, and valves;
 - ii. Door gaskets and seats;
 - iii. Filter gaskets and seats;
 - iv. Pumps;
 - v. Solvent tanks and containers;
 - vi. Water separators;
 - vii. Muck cookers;
 - viii. Stills;
 - ix. Exhaust dampers; and
 - x. Cartridge filter housings.
- 5. Operation and maintenance records
 - a. Each dry cleaning facility must keep an operations and maintenance record that is available upon request.
 - b. The information in the operations and maintenance record must be kept on-site for five years.
 - c. The operations and maintenance record must contain the following information:
 - i. Inspection information:
 - 1. The date, time, and result of each inspection required by Approval Condition III.4. The inspection must note the condition of the system components and whether any perceptible or vapor leaks were observed.
 - 2. The name or location of dry cleaning system components where leaks are detected
 - ii. Repairs. In the operation and maintenance record enter the date, time, and result of each repair of the dry cleaning system.
 - iii. Refrigerated condenser operating information in Approval Condition III.7:
 - 1. The air temperature at the inlet of the refrigerated condenser;
 - 2. The air temperature at the outlet of the refrigerated condenser;
 - 3. The difference between the inlet and outlet temperature readings; and

4. The date the temperature was taken.
 - iv. Inspection information must be entered into the records at the time of the inspection.
 - d. The volume of perchloroethylene purchased each month must be entered by the first of the following month;
 - e. A record of the total amount of perchloroethylene purchased over the previous twelve months must be entered by the first of each month;
 - f. All receipts of perchloroethylene purchases must be retained for 5 years; and
 - g. Record any pollution prevention activities that have been accomplished during the previous month.
6. Repair Requirements
 - a. Leaks must be repaired within twenty-four hours of detection if repair parts are available.
 - b. If repair parts are unavailable, they must be ordered within two working days of detecting the leak.
 - c. Repair parts must be installed as soon as possible, and no later than five working days after arrival.
 - d. The date and time each leak was discovered must be entered in the operations and maintenance record.
 - e. The date, time, and result of each repair must be entered in the operations and maintenance record at the time of the repair.
7. Refrigerated Condenser Operating and Monitoring Requirements
 - a. The dry cleaning system must meet the following refrigerated condenser requirements:
 - i. Outlet air temperature.
 1. Each week the air temperature sensor at the outlet of the refrigerated condenser must be checked.
 2. The air temperature must be entered in the operations and maintenance record manual at the time it is checked.
 - ii. Inlet air temperature.
 1. Each week the air temperature sensor at the inlet of the refrigerated condenser installed on a washer must be checked.
 2. The inlet air temperature must be entered in the operations and maintenance record at the time it is checked.
 - b. Temperature sensor design and installation requirements.
 - i. An air temperature sensor must be permanently installed on the inlet of the refrigerated condenser. The sensor and its readout must be labeled "RC inlet."
 - ii. An air temperature sensor must be permanently installed on the outlet to the refrigerated condenser. The sensor and its readout must be labeled "RC outlet."
 - iii. The air temperature sensor must be accurate to within 2°F (1.1°C).
 - iv. The air temperature sensor must be designed to measure at least a temperature range from 32°F (0°C) to 120°F (48.9°C).

IV. Other Approval Criteria

1. Store fresh and used solvents according to manufacturers' recommendations
2. The dry cleaning machine installed and operated shall be the same as the dry cleaning machine described in the application.

Periodic emissions inventory information and other information may be requested by the Ecology. Emissions information requested by Ecology shall be submitted within 30 days of receiving the request unless otherwise specified.

3. Annual/periodic Registration or Air Operating Permit fees. The applicant will pay the required registration fees within 30 days of receipt of the invoice from Ecology.
4. Access to the source for the purpose of determining compliance with the terms of this General Order of Approval by Ecology staff shall be permitted during normal business hours. Failure to allow such access is grounds for an enforcement action under the Washington State Clean Air Act.
5. The applicant is required to comply with applicable rules and regulations pertaining to air quality, and conditions of operation imposed upon issuance of this order. Any violation of applicable state and/or federal air quality rules and regulations or of the terms of this approval shall be subject to the sanctions provided in Chapter 70.94 RCW. Authorization under this Order may be modified, suspended, or revoked in whole or part for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this authorization;
 - b. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.
6. The provisions of this General Order of Approval are severable and, if any provision of this authorization, or application of any provisions of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.

IV. Legal Basis to Issue This General Order of Approval

The Department of Ecology Air Quality Program is issuing this General Order of Approval as allowed under Washington Administrative Code (WAC) 173-400-560. Receipt of a Coverage Order for installation of a specific unit under this approval satisfies the requirements of WAC 173-400-110.

Approvals

PREPARED BY:	APPROVED BY:
Date:	Date
Alan Newman, PE Air Quality Program Department of Ecology	Stuart A. Clark, Program Manager Air Quality Program Department of Ecology